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### **The 3rd International Methane and Nitrous Oxide Mitigation Conference: latest development**

Scheduled originally for convening in Kunlun Hotel, Beijing September 14 ~ 19 2003, the 3rd International Methane and Nitrous Oxide Mitigation Conference is postponed till November 17 ~ 21 at the same venue. Deadline for conference paper submission is postponed to September 1, correspondingly.

The conference organizing committee has already received abstracts of a total of more than 220 papers. Experts of every special committee scrutinized the paper abstracts and made corresponding selection. Based on the suggestions put forward by these experts, the conference organizing committee has drafted conference programme that is full of colourful activities arranged in an appropriate way. The Second Announcement will be issued very soon. The conference organizing committee once again cordially invite your kind attendance at the conference.

The purpose of this International Conference is to provide a communication opportunity to experts from all over the world to facilitate their seeking alternatives to mitigate the emission of methane and nitrous oxide and the ways to minimize the obstacles to the development of methane & nitrous oxide mitigation projects. Among other things, the conference will focus on in-depth discussion of the main emission sources of methane and nitrous oxide. This will relate to coal mining, agriculture, landfill and sewage management, natural gas and oil system, etc. The conference participants will have the chances to participate in special

discussion meetings focusing on various areas. Topics dealt with include methane and nitrous oxide emission mitigation related testing and calculation methods, economic benefits of the emission mitigation and analysis of different emission sources, etc.

The 3rd International Methane & Nitrous Oxide Mitigation Conference sincerely welcomes the co-sponsorship of government departments, international institutions, foundations, international and domestic companies to this International Conference. This International Conference will be the best platform for the co-sponsorship units to display the units proper and promote cooperation. Logos of the co-sponsorship units will appear on the background panel on the Conference rostrum as well as in related printed materials so as to leave a deep impression on the participants. The Organizing Committee of this International Conference would like to discuss with the potential co-sponsorship units on any other ways of co-sponsorship to satisfy the needs of the co-sponsorship units.

In addition, this International Conference will also provide small-sized exhibit. This International Conference to be attended by over 300 experts is definitely the best place to publicize your own image.

For details about co-sponsorship and exhibition booths, please contact Mr. Clark Talkington or Ms. Liu Xin at:

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### ***China's first ever CDM project contract signed***

Holland announced on March 13 that it officially ratified the total of 18 climate change projects in the field of CO<sub>2</sub> emission mitigation in developing countries. These projects also include a project to be implemented in China – the Huiteng'xi'le wind farm power generation project in Inner Mongolia Autonomous Region. All these projects are expected to achieve a total CO<sub>2</sub> emission no less than 16Mt. The Holland government is to buy out these carbon credits through signing agreements to realize its CO<sub>2</sub> emission mitigation promise offered in the "Kyoto Protocol".

The 34.5MW Inner Mongolia's Huiteng'xi'le wind farm power generation project, China's first clean development mechanism (CDM) project, is to undergo a CO<sub>2</sub> emission mitigation trading agreement signature soon. The Chinese party to sign on this agreement is Inner Mongolia Wind-Electricity Energy Co Ltd (seller) and the Ministry of Housing, Space Planning and the Environment of Holland on the other side. It is learned from informed sources that competent departments of the Chinese government have already approved this project.

Established in 1995, the Inner Mongolia Wind-Electricity Energy Co Ltd has so far developed a total of 4 wind farms for electric power generation including the Huiteng'xi'le wind farm project. The conglomerate installed capacity amounts to about 57MW. The Huiteng'xi'le wind farm project will be equipped with a total of 54 wind generating units to be connected with the power grid. The whole project is to be completed by the beginning of 2004. Inner Mongolia is one of the regions in China where renewable energy resources are

the richest.

In line with the policies as measures to achieve coordinated actions on climate changes much talked about in the “Kyoto Protocol” reached in 1997, Holland is to reduce its GHG emission by 6% on the basis of its emission on the 1990 level by the year 2008 ~ 2012. The size of this GHG emission mitigation is equivalent to the emission reduction totaling 200Mt of CO<sub>2</sub>. Half of the GHG mitigation is to be realized within the territories of Holland and the other half is to be achieved through the implementation of CDM, international carbon emission trading and joint implementation with other industrialized countries. Of the total emission mitigation expected, 2/3 is to be realized through the implementation of CDM cooperation with developing countries.

Holland leads the world in the implementation of CDM. Apart from the establishment of government department in the form of Senter Co. for open tendering for related procurements, the Holland government also signed related business contracts with a series of financial and banking groups and corporations.

### ***China's State Council reform scheme***

The third meeting of the first plenary session of the tenth National People's Congress (NPC) held on March 10 ratified the decision on the organizational restructuring of the State Council.

The State Council organizational restructuring is focused on the following five key areas:

- Deepening the reform of state-owned assets management system;
- Improving the macro regulation system;
- Improving financial supervision and

management system;

Furthering reform of circulation management system;

Intensifying food safety and work safety supervision and management system.

The reform is related to seven aspects:

Deepening the reform of state-owned assets management system by setting up State Assets Supervision and Management Commission under the State Council;

Improving the macro regulation system by restructuring the former State Development Planning Commission (SDPC) into National Development and Reform Commission (NDRC);

Improving financial supervision and management system by setting up China Banking Industry Supervision and Management Commission;

Furthering reform of circulation management system by setting up the Ministry of Commerce;

For intensifying food safety and work safety supervision and management system, the State Administration of Food and Drug Supervision is set up on the basis of the former State Drug Administration and the former State Administration of Work Safety under the State Economic and Trade Commission is changed into a government department directly affiliated to the State Council;

The former State Family Planning Commission is renamed the National Population and Family Planning Commission;

The State Economic and Trade Commission (SETC) and the Ministry of Foreign Trade and Economic Cooperation (MOFTEC) are cancelled.

On the basis of this scheme and related reform, the State Council is to have the following 28 departments as its affiliates apart from its Administrative Department:

1. The Ministry of Foreign Affairs
2. The Ministry of Defense
3. The National Development and Reform Commission
4. The Ministry of Education
5. The Ministry of Science and Technology
6. The State Defense Science and Technology Industry Commission
7. The State Ethnic Affairs Commission
8. The Ministry of Public Security
9. The Ministry of State Security
10. The Ministry of Supervision
11. The Ministry of Civil Affairs
12. The Ministry of Justice
13. The Ministry of Finance
14. The Ministry of Personnel
15. The Ministry of Labour and Social Security
16. The Ministry of Land and Resources
17. The Ministry of Construction
18. The Ministry of Railway
19. The Ministry of Communications
20. The Ministry of Information Industry
21. The Ministry of Water Conservancy
22. The Ministry of Agriculture
23. The Ministry of Commerce
24. The Ministry of Culture
25. The Ministry of Health
26. The National Population and Family Planning Commission
27. The People's Bank of China
28. The State Administration of Audit

### ***Sichuan begins CBM development***

Coalbed methane well drilling operation was officially started at the site of Shiping coal mine

in Guxu coal mine area near Luzhou city, Sichuan Province on May 5. This operation is designed for the pre-exploration of coalbed methane resources in Guxu coal mine area. This symbolizes the official start of the large scale development of coalbed methane resources in Sichuan Province.

It is learned that the proved coalbed methane reserves in Sichuan Province is as much as over 350 billion m<sup>3</sup>. Due to various reasons, however, no action of development has taken place until now. A total of 10 test wells are drilled to the depth of 800m in the three favourable blocks. These wells are drilled for obtaining necessary information and data for coalbed methane development in this area so as to arrange a complete set of technology that is well adapted to the local conditions.

To ensure a smooth implementation of coalbed methane exploration development, Sichuan Provincial Coalfield Geology Bureau chose Guxu coal field as the site for the trial drilling for its richest CBM resources within the limited area with the best development conditions. The Shiping mine CBM well is to be drilled to its designed depth of 628m and is expected to produce coalbed methane in the forthcoming September.

### **Investment opportunities in Coal Mine Projects in Jiaozuo Mining Area Background**

Jiaozuo Coal Group is one of the largest coal enterprises in China. The total confirmed capacity of coal production is 3.46 million tons/a. By 2015, the planned production will be 4.50 million tons /year. In 2000, the coal production of

Jiaozuo Coal Group reached 2.99 million tons.

Jiaozuo mining area has abundant coalbed methane resources. The total coalbed methane resources within the depth of 2000m are 173.3 billion  $\text{m}^3$ . The coal-bearing area in Jiaozuo mining area is 350  $\text{km}^2$ . The gas content is averaged at 10 ~ 38  $\text{m}^3/\text{t}$ . The average resource density is 231 million  $\text{m}^3/\text{km}^2$ . Coals in Jiaozuo mining area have many advantages such as good performance of adsorption, high gas content and high gas saturation, etc, which are favorable to coalbed methane development.

Currently Jiaozuo mining area has 7 high gassy or gas outburst coal mines. In 2000, the methane emissions from Jiaozuo mining area reached 60.16 million  $\text{m}^3$ . Up to 2000, 7 in-mine methane drainage systems have been built in Jiaozuo mining area, with a total methane drainage of 11.42 million  $\text{m}^3/\text{a}$ . If technical retrofit is done, the methane drainage amount could be increased up to 20 million  $\text{m}^3/\text{a}$ . CBM surface development tests have been also conducted. So far, 10 surface boreholes and other 4 coalbed methane surface wells have been drilled. The peak production of a surface borehole reached 1307  $\text{m}^3/\text{d}$ , which shows a commercial potential for surface coalbed methane development.

Currently the annual methane utilization in Jiaozuo mining area is approximately 6 million  $\text{m}^3$ , which accounts for 53% of the total methane drained. At present, the demand of residential use in Jiaozuo City is 30 million  $\text{m}^3/\text{a}$ . It is predicted by experts that by the year of 2010, the total demands for natural gas in Jiaozuo City will reach 564 million  $\text{m}^3$  and 100 million  $\text{m}^3$ , respectively.

## ***Investment Opportunities***

The Jiaozuo Coal Group has identified two coalbed methane projects that would improve mine safety and provide revenue from the sales of coalbed methane. Following is a summary of the two potential CBM/CMM projects for which the Jiaozuo Coal Group is seeking investment:

### ***(1) Jiaozuo CBM residential use project.***

Currently, CBM drainage in Jiaozuo mining area is mainly aimed at coal mine safety. Jiaozuo mining area now has 4 coal mines from which coalbed methane recovered is supplied to the city residents. This project will expand the drainage amount and increase the methane utilization from current 6 million  $\text{m}^3/\text{a}$  to 20 million  $\text{m}^3/\text{a}$ . The project will include the retrofitting and perfecting of the existing in-mine drainage systems, set up new gas holders, gas transport and distribution pipelines and other necessary facilities. Total investment of the project is 53 million yuan (US\$ 6.39 million) including the investment 30 million yuan (US\$3.61 million) of the existing gas transport and distribution system. For the newly added investment, Jiaozuo Coal Group will contribute 30% of the project investment and the remaining 70% will be raised through loans or outside investment. Based on the total investment of 53 million yuan, the estimated net present value (NPV) would be 19.79 million yuan (US\$2.38 million), the internal rate of return (IRR) would be 23%, and the payback time would be 7 years. Jiaozuo Coal Group proposes to start the project in 2002 and anticipates that it would be fully implemented by the end of 2003.

### ***(2) Encun CBM surface development project.***

The project will use vertical well method to recover coalbed methane in Encun Block. The project includes the construction of 100 surface

wells, and the annual gas production is 100 million m<sup>3</sup>. The service life of the project is 30 years. Coalbed methane recovered from the project will be mainly supplied to some major industrial users in Jiaozuo City. Project engineering will consist of surface well drilling and construction of the CBM gathering system. With regard to total investment 200 million yuan, Jiaozuo Coal Group will be responsible for the raising of 35% of the total, and the remaining is expected to obtain from outside investment. Based on the total investment of 200 million yuan, the estimated NPV of the project would be 98.66 million yuan (US\$11.89 million), the IRR would be 24%, and the payback time would be 8 years. Jiaozuo Coal Group proposes to start the project, and anticipates that it would be fully implemented by 2005.

Jiaozuo Coal Group recognizes that investment in these projects may have certain risks. The variation of CBM price and CBM production may affect the project economics. Jiaozuo Coal Group is ready to help determine the market risk for potential foreign investors and willing to answer any important question investors may concern.

Jiaozuo Coal Group is also ready to consider every possible way for cooperation and various means for capital raising to carry out the above projects. Representatives of banks, foreign companies and overseas financial organizations are welcomed to review the attached marketing package and contact us for more information.

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